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ABSTRACT

Characteristics of periodical use at a small liberal arts college were studied using a methodology aimed at providing a more accurate system for data collection by recording all the periodicals used in an entire semester. In the John J. Wright Library at La Roche College (Pennsylvania), circulation records were consulted, and one person while reshelving actually counted periodical items that had been moved to obtain more accurate records of use. In the 100 days of library use in the semester (January through April), there were 7,264 uses of periodicals, an average of 73 per day. Of the 898 titles available, 644 were used at least once (72 percent) by students, faculty, or staff. Data show that academic discipline, date of publication, journal format, and accessibility of materials all had an effect on the extent of use that a given periodical received. It was also found that there was an inverse relationship between book and periodical use within academic disciplines. Three tables present study findings. (SLD)

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Characteristics of Periodical Use in the Small College Library

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Characteristics of Periodical Use

in the Small College Library

ABSTRACT

This study describes the characteristics of periodical usage at one small liberal arts college. Included is a methodology which attempts to provide a more accurate system for data collection by recording all of the periodicals used during an entire semester. The data shows that academic discipline, date of publication, journal format, and accessibility of materials all had an effect on the extent of use a given periodical received. It was also found that there was an inverse relationship between book and periodical use within academic disciplines.

Periodical usage has been the subject of numerous investigations within the library community over the years. The vast majority of these studies, however, have taken place within large university libraries. The study undertaken here addresses this issue from the perspective of the small college library. Because our missions differ from that of research libraries, the results of such a study may yield findings which differ with those from our larger brethren.

This project was conceived with the idea of producing a comprehensive quantitative report on periodical usage in a small college setting. The specific issues investigated include the number of periodical uses (total and per title), the impact of format on use (fiche/film vs. paper), use vs. publication date, and use as a function of subject matter.

This study took place in the John J. Wright Library, La Roche College, located near Pittsburgh, PA. The college is a small, liberal arts institution, with approximately 1,050 FTE students, of which the vast majority are undergraduates. La Roche College is known for its strong graphic arts, graphic design, and interior design programs, as well as its programs in business administration and nursing. In addition to these disciplines, the curriculum contains all of the basic science, humanities, and social science courses of study found in liberal arts colleges.

Wright Library actively supports all of these academic programs through its resources and services. Because of the

limited size of the book collection, approximately 66,000 volumes, periodicals play a crucial role in meeting the informational needs of our students.

At the time this study was conducted the periodical collection consisted of 898 titles, with 625 being current subscriptions. Microforms accounted for 138 titles (21.4%) of the collection, although many titles were held in both formats (microform and paper). For the purposes of this report, the number of journals which were deemed to be principally in a micro format was determined to be only 39, or 4% of the total.

METHODOLOGY

The most comprehensive and broadly-based method of data collection was desired for this report, as the goal was to identify as many uses of our periodicals as possible. Nearly all periodicals including current issues, bound volumes, microforms, and titles held in storage were included. The only exceptions were journal articles which had been placed on reserve by the faculty. They were excluded from the compiled data as it was felt that their use was directly influenced by faculty preference.

Because none of our periodicals circulate, the data which was collected came entirely from in-house usage. It was important, therefore, to be able to identify as many uses as possible. For this reason, it was decided that all periodicals would be accounted for during the time in which the study took place. This system involved counting not only those journals

left on the tables or study carrels, but it also attempted to identify items which had been placed back on the shelves by patrons. It was recognized that, despite signs asking patrons not to put periodicals back on the shelves, many journals were re-shelved by their users. A methodology which would account for these uses as accurately as possible needed to be developed.

Due to the relatively small number of periodicals contained in Wright Library, it was felt that one person could accurately maintain the records of their usage on a daily basis. In order to insure continuity in determining which titles were used, it was decided that during the period of time in which the study took place (winter semester, 1989) the author would re-shelve all periodicals used during that four-month period. In this manner, the only people putting materials which had been used back on the shelves were the author and some of the people using them.

Although this methodology was time consuming, it was feasible because of the working environment at this college. The staff at Wright Library is small in number and as a result we all, clericals and professionals, have to help with the "donkey" work. While it may appear ludicrious to most librarians that a professional would routinely have to perform such duties, it is a sad fact of life at some small, underfunded institutions. It was because of this necessity that it was possible to devote so much time to one project simply because if the shelving of periodicals had been done by others, the author would have had to perform one or more equally mind-numbing tasks. Although it is true that this project resulted in a great deal of labor intensive work, it

would not be considered an inordinate amount for one of our librarians. It would undoubtedly be considered grossly excessive by most professional librarians, however. Given these circumstances it seemed reasonable to obtain the greatest amount of data possible by maintaining the survey over the entire semester.

The main reason for utilizing this technique of direct and continuous tabulation was to obtain as accurate a record of usage as possible. Relying on the same individual to check the desks, carrels, and stacks every day would enable that person to locate more readily any item which had been replaced by patrons because of a shift in its location on the shelves.

In order to monitor accurately re-shelved items, all of the journals were checked prior to the start of the winter semester to make sure they were in their proper location and numerical (year/volume) order. The periodicals were then placed exactly at the edge of the shelf on which they resided. If a journal was used and put back on the shelf by a patron it was possible to determine this, in the majority of cases, from its location on the shelf. One volume would be pushed in slightly farther than its neighbors or it may stick out on the shelf to a greater extent. When such a journal was located, movement of this type was determined to be one use of that title during any given 24 hour period.

It was felt that this system would allow for greater accuracy in determining usage, although not a fool-proof system by any means. A volume which was not in the same exact location

it had been earlier would be an indication that it had at least been moved and presumably used, however briefly, at least once, but multiple uses would be virtually impossible to determine. By utilizing this technique, it was found that approximately 29% of our usage could be attributed to materials used and re-shelved by our patrons.

In order to maintain accuracy and to reduce the number of counting errors the periodical stacks were scanned twice a day: in the morning when journals were re-shelved and in the afternoon. The result was a compilation of data which gave a highly accurate account of periodical usage over a four-month period.

All of the journals which were used during the semester were placed into one of five basic groups depending upon their subject matter. Included were Science (health sciences, biology, chemistry, mathematics), Social Science (history, political science, sociology, psychology, education), Administration and Management (A&M) (business, computer information systems), Humanities (religion, foreign languages, english, philosophy, fine arts), and a General category.

It was easy to categorize the majority of titles, but some proved to be difficult as they dealt with two or more divergent subjects. Examples include periodicals related to science education, or the history of philosophy. In such cases, the predominant theme was chosen after reviewing several issues of that journal. If it dealt to a greater extent with history than philosophy, it would be placed in the Social Sciences; if

philosophy was deemed to be more important, that journal would be listed in the Humanities.

The bound periodicals in Wright Library are arranged alphabetically by title, with the majority being housed in the same general area of the library. Adjacent to this area is the current periodicals section which contains unbound issues, which are usually less than one year old. Located near the current periodical section are the microfilm/fiche journals and the reader/printers. All of the above areas within the library are freely accessible to our patrons. There were 64 titles which were kept in storage in the basement of the library in 1989 and not directly accessible to the patrons; if a student or faculty member wanted a particular issue, a member of the staff had to go downstairs and retrieve it. The reason for these items being in closed stacks was not for security reasons, but because of space limitations.

FINDINGS

The statistics generated by this study yielded results which were informative, interesting, and at times surprising. The data reflected that a larger number of patrons than anticipated used the periodical collection. The library was open a total of 100 days during the months of January, February, March and April. During that time there were 7,264 uses of our periodicals, or an average of 73 per day. However, during the more heavily used periods of the semester the daily count rose to over 200 uses.

The number of titles used by our patrons was larger and more

diverse than expected. Of the 898 titles available within the library, 644 were utilized by students, faculty, or staff. Thus, 72% of the titles in the collection were used at least once during the four months of the study. This finding was surprising for two reasons. A large number of our students are categorized as non-traditional and attend evening classes on a part-time basis, and, in many cases their instructors place journal articles on reserve in the library. It was felt that the usage of our periodicals would be of less significance because the reserve materials were not included in this study. It was also expected that because of limited faculty and graduate student research, our usage totals would be smaller than other institutions of a similar size. Neither point proved to be valid. A similar study by Martin Gordon found that 58% of Franklin & Marshall's periodicals were utilized, a figure he characterized as indicative of an active collection. (Gordon 1982) Our periodical usage was 14% higher than Franklin & Marshall's figures, despite our limitations.

Not surprisingly, the majority of the 644 journals which were used were scholarly, but the majority of uses, based upon the average number of uses per title, were from periodicals of a general nature. [see Table A] Titles within the General category composed the smallest number of journals by far, only 6.2%, but they accounted for the highest average use - 24.9 uses per title. The Sciences were the second most heavily used periodicals at 14.6 followed by A&M with 12.1 uses per title. The two remaining disciplines each had their distinctive characteristics. The

Social Sciences had the most uses, but as they encompassed the largest number of titles available to our patrons, they averaged only 10 uses per title. The Humanities titles comprised nearly 21% of the collection, but they accounted for only 9% of the uses, or 5 uses per title, well below the figures for all the other subject areas.

When the averages were calculated according to the number of students majoring within the general subject categories, the results were even more illuminating. On a per student basis, the Social Science students accounted for 62% of the total periodical uses, or 19.7 uses per student. The Science and A&M students were significantly lower with 18% and 13% respectively (5.7 uses per Science student, 4.3 uses per A&M student). The Humanities students were well below all of the other groups, as they averaged only 2.1 journal uses during the semester, or 7% of the total.

Another area which was part of this investigation was to determine if there was a correlation between book and periodical usage based upon broad academic disciplines. Analyzing the data indicated a preference of nearly two to one for periodical articles over books (7,264 periodical uses vs. 3,815 books). Subject areas which traditionally have high periodical usage followed anticipated patterns. The Sciences had nearly four times as many periodical uses as books (1,913 vs. 541), and the ratio of A&M materials was approximately two and one-half to one (1,611 vs. 605). Not surprisingly, the Humanities relied on books as their primary source of information, not journals. It

was the only category in which this statement was true, with more than twice as many books used as periodicals (1,352 vs. 667). The Social Sciences provided the most balance in their usage pattern, but periodicals still held a 62% to 38% advantage over books.

These findings support the contention that subjects in which the knowledge base changes rapidly are more likely to rely on periodicals to convey their information. Students in the pure sciences, health science, computer science, etc., need the quicker response time of a journal. It is more important in the humanities, however, that subjects be covered in greater depth with currency being less vital, hence the use of books more often than periodicals.

This news is not a stunning revelation to librarians, yet it is useful to quantify these results in order that all of us in the small college environment have a better understanding of what is likely to be used by the differing constituencies in our libraries. Armed with this type of information, library administrators can better allocate scarce resources (money, staff, facilities, etc.) in order to achieve the maximum benefit for our patrons.

Quantifying the lack of use of several journals which no longer met a need in our curriculum was helpful in another way. It convinced reluctant faculty members of the need to cancel some of those subscriptions or to change them into a less expensive microfilm/fiche format. Because these data were available, 21 titles were eliminated from our collection. The money saved was

then spent on other subscriptions or was shifted to their departmental book budget.

Caution needs to be exercised, however. Canceling journal subscriptions is always a politically charged, highly explosive proposition with the teaching faculty. For a librarian to make recommendations based on data from another institution can often be inappropriate, if not disastrous. The generalization that because specific journals are used in one college they are likely to be used in another is just that, a generalization. It is not something upon which an administrator can base critical decisions about canceling subscriptions. (Broadus 1985)

It is necessary that individual libraries be examined critically by their staff in order that the trends and issues of a specific library on a specific campus be identified. It would be ludicrous for another library to adjust their book/periodical budgets based on the findings listed in this report. It is the process through which we arrived at our decisions at La Roche College which may be useful to other institutions.

Another area of interest in this investigation was the question of why some journals are used many times and others very little if at all, outside of their subject content. Several factors were found to influence the likelihood of a periodical being used. Included were currency, ease of access, and the format in which a journal was received. These three components were instrumental in the usage patterns which developed during the semester.

The effect of format on periodical usage was found to be an

important factor. The question of precisely how much or how little microforms are used in a library setting has long been asked. Any reference librarian knows that, just as electronic indexes are preferred over paper, so it is that hard copy periodicals are preferred over microfilm/fiche. Yet, sales representatives from microform companies often present a much brighter view of the acceptance of microforms by patrons. Therefore, an accurate assessment of usage in the different formats was necessary. However, only a study in which the same volumes and issues were available in both formats would provide reliable data. The opportunity to investigate the usage patterns of microform vs. paper presented itself because for several years Wright Library received many of the same journals in both formats thus making a valid comparison possible.

In order to help determine the precise role format had on use, the collection as a whole was examined first. It was found that for the overall periodical collection, paper copies were used approximately 2.5 times more often than microforms, despite the fact that high quality paper copies could be made from the fiche/film. The average uses for a journal in hard copy was 11.7 per title, while microforms averaged 4.6 uses per title.

It was anticipated that this disparity would become much greater when the same paper and fiche/film issues were available to the public. This situation did not take place, however, as the average usage rate remained relatively constant. There were 265 uses which occurred in the dual availability category (paper and microforms), of which 75 (28%) were microform uses. This

data indicates that although microforms are clearly not as popular as paper among patrons, they are not detested to the degree that one would expect. When students need information they seem willing to use whatever format is available. There is no doubt that on-line and paper products are preferred, but microforms can provide an inexpensive alternative to low-use journals, without fear that money is being spent on items which will not receive any use.

Currency was also of vital importance in the distribution of periodical usage. More than half of the periodical uses, 3840 out of 7264, came from the two most recent years of publication (1987 and 1988), with 83% (5,997 of 7,264) coming from the last five years (1984-1988). Table B illustrates the frequency with which our patrons utilized our materials. Following the second year of shelf-life, use dramatically declined before settling into a more gradual pattern of reduction. Clearly, the older a journal was, the less likely it was to be used.

Examining use and year of publication by major subjects yielded an interesting comparison. Because of the great variance in the number of periodical uses within subject areas (i.e. - social science with 2,079 and humanities with 667), it was felt that comparing percentage of use would provide a better representation of the trends within each major area.

Although date of publication was found to be an accurate predictor of total periodical usage, such use was not distributed uniformly for all subject areas. It was found that the more recent the material, the greater the divergence in use by

subject. Table C illustrates this point by indicating percentage of total use by year within each major area, where S=Science, G=General, H=Humanities, A=A&M, and X=Social Science. Based upon percentage of use within each broad category, in 1988 there was a spread of 14.9% between the subjects which had the highest and lowest percentage of use. (A&M had 33.3% of its uses in that year while Humanities had only 18.4% of its uses in 1988) The succeeding years saw a steady reduction in both periodical usage and the gap between each major area. While journals in areas such as A&M, Science, and General had higher use rates for recent material, after eight years subject content had little effect on the amount of use periodicals received, as all of the major areas were within 1% of each other.

Of greater importance from the point of view of an administrator, who must assume the unsavory role of bean counter when budget preparation time is at hand, was the number of current subscription titles used by our patrons. It was found that the great majority of current subscriptions, 95% of the total, were used at least once. Conversely, only 12% of the non-current titles (those journals which we no longer received in 1988) were used during the winter semester of 1989. Of the 625 current periodicals the library subscribed to in 1989, 593 were used at least one time, with only 32 titles not being used at all. The figures were nearly reversed for non-current journals, with 51 being used and 222 receiving no use. It is evident that our journals are performing their intended function, at least minimally, and are not a useless drain on our materials budget.

These figures support the contention that college libraries need to be more concerned with the here and now rather than the needs of tomorrow or yesterday. While a research library can and should consider potential use by future scholars as a basis for acquiring and retaining materials, college libraries should not attempt to operate under the same criteria. Teaching the research method is often more important to undergraduate institutions (and their libraries) than the research itself. This statement should not be interpreted as a call to strip the shelves of all items not used within the recent past, but our focus should be on supporting the undergraduate curriculum of today. Let research libraries house the obscure and esoteric materials needed by research-oriented faculty and doctoral students. We have neither the funds or the manpower to try to provide highly selective materials in anything other than limited quantities. If faculty complain about the lack of long runs of seldom-used journals, it is incumbent upon us to enlighten them that a college library is not merely a miniaturized version of a research library. (Farber 1979)

Accessibility to library materials was another factor in the amount of their use. It was found that at Wright Library, periodicals placed in storage experienced a significant reduction of usage, even though the majority were still active subscriptions. The likelihood of there being a need for a title in storage was only one-third of that of a title shelved in the regular stacks. (3.9 uses/storage vs. 11.9 uses/open stacks) The data generated in this report provided useful insights into

periodical use as a function of both availability and format. The overwhelming majority of periodical usage, 92%, came from traditional, readily available materials. These were bound journals located in open stacks. The remaining 8% was divided into two groups; microforms (which were directly accessible by our patrons) accounted for 6% of our uses, and hard bound journals which were located in storage (not directly accessible to the public) resulted in 2% of our periodical usage.

If a lack of adequate shelving space is a problem, placing periodicals in a storage area is a desirable alternative. Because many college libraries, especially those found in older institutions, suffer from a lack of space, removing such periodicals from the stacks can help alleviate space problems. Storing existing hard copy can often be the most cost effective method if a storage facility is available. It must be remembered, however, that the use of titles placed there will be curtailed. A better choice may be to convert those titles into microforms where they are more centrally located and easily accessible than materials in a remote storage area.

It is not known exactly why our patrons showed a preference for microforms over storage items, although several possibilities come to mind. One reason may stem from the fact that some patrons have a great reluctance to ask for assistance, particularly men, who tend to link independence and maleness. (Veroff, 1981) Secondly, they may not have realized that there was any such thing as a storage area in the library despite numerous copies of our periodical holdings lists which indicate

such a location. If they could not physically see a journal, they may have assumed it did not exist. A third possibility may stem from our instant gratification society in which patrons want their materials now and do not want to have to wait for someone to retrieve it for them. It is likely that all of these reasons plays a part in their low rate of use.

A final, but crucial, factor in this discussion is the role of the teaching faculty. Their requirements can be vital to the use/non-use of library resources, particularly in a small college where there are many one or two-person departments. Professors who fully understand the value of the library in the educational process can make an important impact on the ability of their students to survive in a complicated and information-rich world. They also strengthen the case of their departments when the budget axe must be wielded. It is not coincidental that at La Roche College the Psychology department has an above-average number of periodicals in the library. Their usage rates are consistently higher than any other discipline primarily because of one professor who regularly requires an extensive research paper in her senior seminar course, with 40 to 60 page papers being common. Although they have a large number of subscriptions, they are in no danger of being canceled because they are used year after year.

CONCLUSION

The methodology employed in this study was instrumental in the compilation of accurate data. Although it was very labor

intensive, it produced a wealth of information about our periodical collection.

Currency was found to be of paramount importance to our patrons, as over half of the total number of uses came within the first 2 years of shelf-life. Equally noticeable was the decline in periodical usage as a title became older. After a journal reached 20 years old, the chance of it being used was practically nil, with less than 3% of our uses coming after 1968. It was also found that the money we spend on periodicals is generally well spent. Ninety-five percent of the titles to which we subscribed in 1989 were used in the test period, while only 19% of non-current titles were used.

Format also played a major role in the usage figures of our patrons. The majority of uses were from journals in the traditional paper format (i.e-bound and current issues) which were readily available to our patrons. Surprisingly, however, it was found that microforms were accepted far more than anticipated. While accounting for only 6% of the total usage, when data were compared for all of the journals which we had in both paper and microform the disparity was much smaller than expected. Although paper is preferred by almost all library patrons, microforms offer a relatively low-cost alternative (both in terms of acquisitions and shelving costs) for those titles which are not utilized to a great extent. It also can provide a solution for long runs of older issues of journals which consume large amounts of shelf space which are seldom used after 20 or 25 years.

One consequence of this investigation was to identify those journals which had duplicated each other in both formats for several years. The outcome was that, in most cases, one or the other was canceled, resulting in more money being made available for further acquisitions.

Broad academic subject area also was a factor in the frequency of periodical use viz a viz monographs. Journals of a general nature were, not surprisingly, utilized most often. Students from the Sciences needed the currency of information which periodicals provided. They had nearly four times as many journal uses as book uses. The A&M journals were used 2 1/2 times more often, with the Social Sciences being at a level of nearly 2 to 1 in favor of periodicals. The Humanities were the only subject area in which books had a higher usage rate, with more than twice as many as periodicals. The figures were even more graphic when percentages were compared by the number of majors in each area.

All of these figures are indicative of the types of information people need. Science and business-oriented clientele require smaller amounts of current information, while those in the humanities have a need for greater depth in their material with timeliness being less critical.

These findings have a direct impact on small libraries with limited materials budgets. Not only do we need to get the biggest bang for the buck by purchasing materials which are actually used, many of us cannot afford the luxury of housing great numbers of older materials which are never used. For these

reasons, adjustments in our budgets based upon faculty/student needs and usage studies such as this one are more important than ever.

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TABLE A

SUBJECT	# TITLES (%)	# CIRC'S (%)	AVE. # CIRC'S
General	40 (6.2%)	994 (13.7%)	24.9
Social Science	207 (32.1%)	2079 (28.6%)	10.0
Science	131 (20.3%)	1913 (26.3%)	14.6
Humanities	133 (20.7%)	667 (9.2%)	5.0
A & M	133 (20.7%)	1611 (22.2%)	12.1
TOTAL	644	7264	11.3

TABLE B

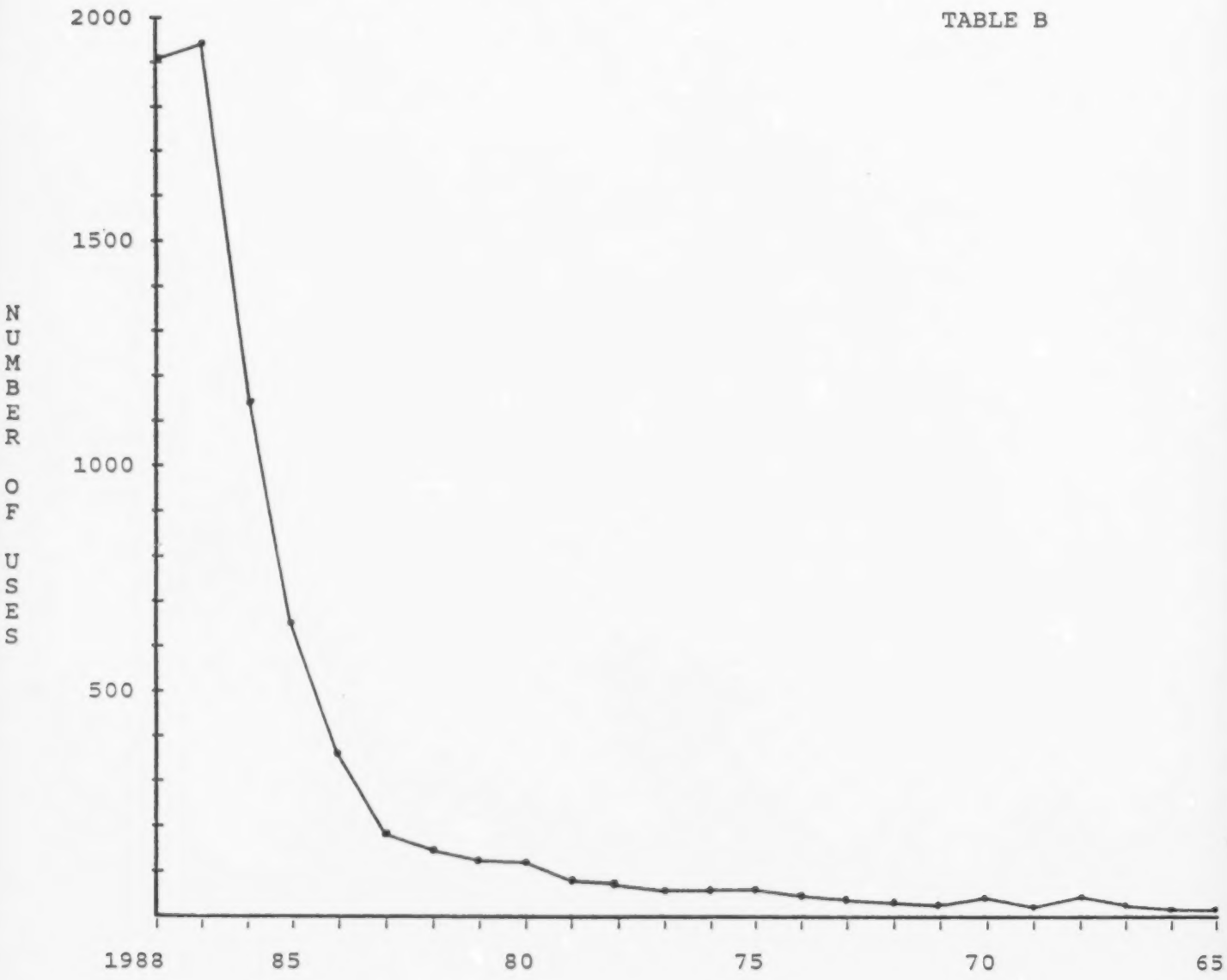
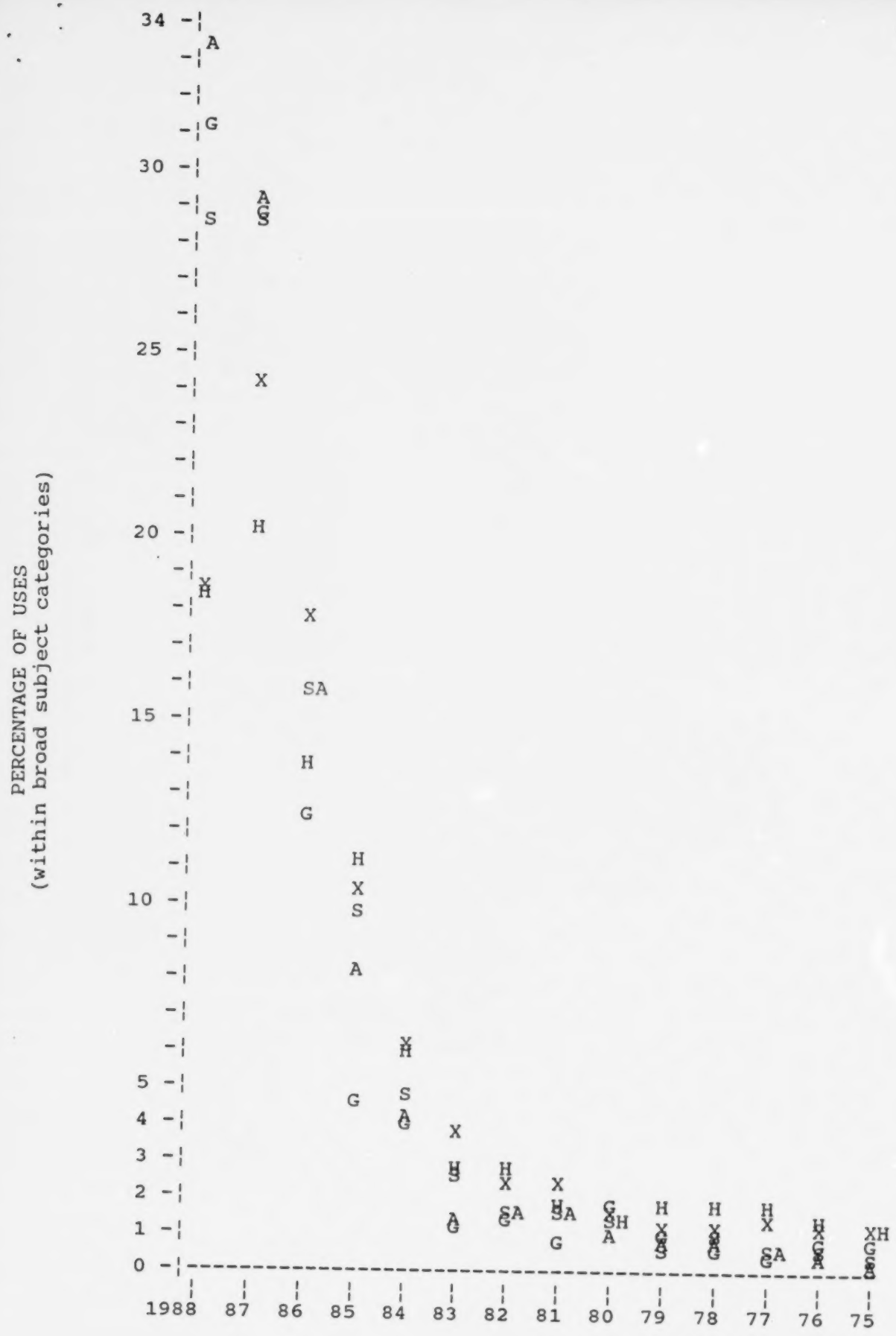

2000
1500
1000
500
NUMBER OF USES
1988
85
80
75
70
65
YEAR OF PUBLICATION

TABLE C



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